



AAR-100

Human Factors Newsletter # 00-08

(April 8, 2000 – April 28, 2000)

- **DSAR1:** The Decision Support Automation Research project (DSAR) passed the halfway point in its data collection phase. Each week two new controllers arrive and spend one week in familiarization training and a second week in data collection. Two groups of two controllers are overlapping each week with one in training and the other in simulation testing. The study will wind up at the end of the second week of May. DSAR1 studies the effect of automation within operational hardware and software on performance and behavior of controllers. The follow on research currently labeled as DSAR-II is already in the planning stages. (B. Willems, E. Stein, WJHTC)
- **AFSS Voice Switch:** Engineering research psychologists from the William J. Hughes Technical Center demonstrated the Automated Flight Service Station Voice Switch (AFSSVS) computer-human interface (CHI) prototype to representatives from several ATS, AND, and NAATS organizations. The prototype, developed at the Research, Development & Human Factors Laboratory, contains all screens and functions that will be included in the actual system. It allows very rapid modifications and improvements and will serve as the platform for a CHI validation to be held in July 2000. The AFSSVS prototype is a result of the rapid CHI prototyping process and the application of FAA Human Factors Design Guide recommendations. (K. Allendoerfer, WJHTC; A. Poston, AND-100)
- **FAA/Eurocontrol Action Plan 12 Meeting:** Drs. P. Krois (AAR-100), J. Pounds (FAA/CAMI), and R. Mogford (NASA Ames) traveled to Eurocontrol headquarters in Brussels, Belgium and met with Eurocontrol scientists to discuss work-to-date on the FAA/Eurocontrol Action Plan 12 (Management and Reduction of Human Error in ATM) and to coordinate planning for completion of Work Package 1 (the comparison of the Human Factors Analysis and Classification System with the Human Error Reduction for ATM technique). A preliminary plan was also outlined for completion of Work Packages 2 and 3 in a human error workshop scheduled for 2001 and development of a methodology for predicting human error for application to system design and development. Drs. Krois, Pounds, and Mogford also visited the National Aerospace Laboratory NLR in Amsterdam and met with human factors scientists to discuss current research projects. Demonstrations and briefings were provided of the NLR runway incursion alert interface for conflict detection, the NLR/NASA free flight research concept, the NLR ATC Research Simulator

(NARSIM), tower simulator, and human performance measurement techniques and risk analysis techniques. (P. Krois, AAR-100; J. Pounds, CAMI; R. Mogford, NASA Ames)

- **AGATE Sun & Fun Meeting:** A CAMI representative participated in the AGATE Sun & Fun Meeting that was held in Kissimmee, FL. The Work Package G, Curriculum Development Team reviewed current progress on development and testing of a unified private/instrument curriculum and the evaluation of training requirements for a Highway-in-the Sky display. Discussion also focused on transition of efforts from the AGATE program to the upcoming Small Aircraft Transportation (SATS) program. (K. Williams, CAMI)
- **AT-SAT Briefing:** Drs. Michael Heil and Robert Ramos briefed AHR-1 and AAT-1 on the Air Traffic Selection and Training (AT-SAT) validation. Information was provided regarding development and validation of the test battery. The briefing included a description of the components of the test battery, the criterion measures used to validate the tests, and performance of various subgroups. Plans were discussed for implementation of the test at Sylvan Test Centers across the country and targeted recruitment. (M. Heil, CAMI)
- **Age 60 Study:** CAMI scientists conferred with consultants from Johns Hopkins University, Northwestern University, and the University of Oklahoma Health Sciences Center. The meeting focused on advanced statistical procedures that can be used to analyze the accident rate, experience, and pilot age data available to conduct the Age 60 study. (C. Lowman, CAMI)
- **Human Factors Meetings:** The General Aviation Human Factors and Flight Technologies and Procedures Human Factors Technical Team recently held meetings to identify and prioritize human factors research requirements. Representatives from AVR, AIR, AFS, AAM, and AAR-100 met to discuss and coordinate the AVR/AAR-100 human factors research requirement process. The goal is to have the FY-01 and FY-02 research requirements in place and prioritized by June 2, 2000. These prioritized requirements will drive the FY-01 Aviation Research Resume (ARR) development. (S. Shappell, CAMI)
- **Society for Industrial and Organizational Psychology Conference:** Several CAMI researchers participated in the Society for Industrial and Organizational Psychology Conference and workshops that were held in New Orleans, LA. The researchers conferred with individuals who expressed interest in a research position at CAMI. During the meeting, Dr. Michael Heil accepted a plaque for the FAA that was awarded by the Society for the AT-SAT validation research project. (R. Thompson, M. Heil, B. Farmer, CAMI)
- **Situational Awareness in Airway Facilities:** Human Factors researchers have published the results of a study examining situational awareness in Airway Facilities. The technical note is entitled "Situational Awareness in Airway Facilities: Replacement of Maintenance Control Centers with Operational Control Centers" (DOT/FAA/CT-TN00/09). This report is available to the public through the National Technical Information Service (NTIS) or in PDF format at <http://www.tc.faa.gov/act-500/HFL>. (V. Ahlstrom, WJH FAATC)

*More information on human factors research can be found at
the FAA Human Factors (AAR-100) web site <http://www.hf.faa.gov>*

Mark Rodgers
FAA (AAR-100)



May 9-10, 2000- Inter-Agency Integrated Product Team Technical Meeting on Human Factors in Acquisition, FAA Headquarters, Washington, DC e-mail: Paul.Krois@faa.gov

May 9-11, 2000- General Aviation Technology Conference and Exposition, Century II Convention Center, Wichita, KS <http://www.sae.org/calendar/gat00/index.htm>

May 10-12, 2000- 3rd International Conference on Nonlinear Problems in Aviation and Aerospace, Daytona Beach, FL <http://students.db.erau.edu/~siva/conference.html>

May 15-18, 2000- 4th Joint DOD/FAA/NASA Conference on Aging Aircraft, St. Louis, MO <http://www.aging2000.com>

May 22-25, 2000- The Future of Free Flight NASA Distributed Air/Ground Workshop, NASA Ames Research Center, Moffett Field, CA <http://www.asc.nasa.gov/aatt> e-mail: aboyle@mail.arc.nasa.gov

May 23-26, 2000- FAA Eurocontrol Action Plan 6 Technical Meeting on Departure Clearances, Amsterdam, Netherlands e-mail: Paul.Krois@faa.gov

May 31, 2000- Commercial Space Transportation Advisory Committee Meeting, Bessie Coleman Conference Center, FAA Headquarters, Washington, DC <http://ast.faa.gov/>

June 3, 2000- AOPA Fly-In and Open House, AOPA Headquarters, Frederick, MD <http://www.aopa.org/special/fly-in/2000/>

June 6-8, 2000- Digital Human Modeling for Design and Engineering (DHM) Conference and Exposition, Hyatt Regency, Dearborn, MI <http://www.sae.org/calendar/dhm00/index.htm>

June 13-16, 2000- 3rd International Air Traffic Management R&D Seminar, “ATM-2000”, Napoli, Italy <http://atm-seminar-2000.eurocontrol.fr>

June 14-15, 2000- Fourth GAIN World Conference, Le Meridien Montparnasse Hotel, Paris, France <http://www.asy.faa.gov/gain/conferences/gain4/gain4info.html>

June 20-22, 2000- Threats, Countermeasures, and Situational Awareness: Teaming for Survivability, The Virginia Beach Pavilion and Convention Center, Virginia Beach, VA

http://corp-nt20.nawcad.navy.mil/nawcad/news/sit_aware/2000/

July 30 – August 4, 2000- 14th Triennial Congress of the International Ergonomics Association and the Human Factors and Ergonomics Society 44th Annual Meeting “IEA 2000/HFES 2000”, San Diego Marriott Hotel and Marina, San Diego, CA <http://iea2000.hfes.org/>

August 27-September 1, 2000- 22nd International Council of the Aeronautical Sciences (ICAS) Congress, Harrogate, UK <http://www.aiaa.org/calendar/icas00cfp.html>

October 10-12, 2000- World Aviation Congress and Exposition, Town and Country Hotel, San Diego, CA <http://www.sae.org/calendar/wac00/index.htm>

October 15-19, 2000- Human Performance, Situation Awareness & Automation: User-Centered Design for a New Millennium, Marriott Riverfront, Savannah, GA
<http://www.ie.msstate.edu/hpsaa/index.html>

Note: Calendar events in Italics are new since the last Newsletter



Comments or questions regarding this newsletter?
Please contact Shannon Hower at (202) 863-2680
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